



# No. 1: Weatherize Turbine 6

**Problem:** SWBNO has a 60 Hz turbine generator that cannot function under 45 degrees Fahrenheit because of the threat of icing on its blades.

**Solution:** Preheat air before it enters the turbine to protect against icing.

**Cost:** Estimated \$2 million

**Benefit:** 15 MW of uninterrupted 60Hz power that can drive the pumps for potable water and support drainage throughout the winter and all year long.

## No. 2: Fast Bus Transfer

**Problem:** A one-second drop in Entergy power can cause water service pumps to trip offline, leading to citywide pressure drops.

**Solution:** Install modern tech to transfer power from one Entergy feeder to another within a 10<sup>th</sup> of a second, so water pumps won't detect an interruption. This is an innovative approach that will require further study, but we believe it is doable.

**Cost:** Estimated \$4 million

**Benefit:** Increase in power reliability to all 60Hz water pumps

## **No. 3: Convert water pumps A and B in the High Lift from Steam to Electric**

**Problem:** Steam power is inefficient and expensive. Cooling water cross connections are substandard and must be eliminated.

**Solution:** Convert motors from steam power to electric power and provide pumps with capability to run at varying speeds. This will allow them to automatically react to water pressure changes in the distribution system.

**Cost:** Estimated \$1.5 million

**Benefit:** Help reduce the cross connection challenge; considerable reduction in operations and maintenance cost; sets groundwork for variable frequency drives in all water pumps.